

Notice of Allowability

Application No.

09/684,555

Examiner

Philip C. Lee

Applicant(s)

HVOSTOV ET AL.

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 11/30/05.
2. ☒ The allowed claim(s) is/are 1-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>3/1/06</u> |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |


JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
2. Authorization for this examiner's amendment was given in a telephone interview with Russell Tarleton, reg. no. 31,800 on March 1, 2006.
3. The application has been amended as follows:
 - a. Replace claim 5 to read as of the following:

In Claim 5,

5. (currently amended) A method for network device subsystem operations, comprising:
implementing an interfacing method internal to a cable modem, comprising:
implementing a first component in ~~a network device~~ the cable modem, the first component having functions and function pointers corresponding to the functions;
implementing a second component in the ~~network device~~ cable modem, the second component having references to the function pointers of the first component, wherein the second component indirectly invokes one of the functions by requesting that

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an interface manager, created by the second component during the initialization of the ~~network device~~ cable modem, invoke the function on behalf of the second component, and wherein the first component, second component, and interface manager execute within the ~~network device~~ cable modem;

receiving a request via a message queue from the second component for a function in the first component via a corresponding reference to the function pointer, wherein the request includes a component identifier, an interface identifier, and a function parameter;

processing the second component request by invoking the interface method corresponding to the interface identifier of the first component that corresponds to the component identifier included in the request and passing the function parameter to the first component; and

generating a response from the first component to provide the requested function result, based on the function parameter, to the interface manager, thereafter the interface manager relaying the result to the second component.

b. Replace claim 10 to read as of the following:

In Claim 10,

10. (currently amended) A method of facilitating communications in a network station for a data-over-cable network having a plurality of network stations, the method comprising:

providing a plurality of components in a ~~network station~~ cable modem, each of the plurality of components having a functionality set and a table of pointers for the functionality set;

providing a station manager in the ~~network station~~ cable modem having references to the tables of pointers in the plurality of components;

providing an interface manager, created by the station manager during initialization of the ~~network station~~ cable modem, for communication via a message queue with the station manager, wherein the station manager indirectly invokes one of the component functions by requesting that the interface manager invoke the function on behalf of the station manager, and wherein the components, station manager, and interface manager execute within the ~~network device~~ cable modem;

generating requests at the station manager for functionality through the references to the tables of pointers and sending the requests for functionality to the interface manager via the message queue, wherein each request includes a component identifier, an interface identifier, and a function parameter; and

processing station manager requests for functionality from the plurality of components through the interface manager via the references to the tables of pointers.

c. Replace claim 15 to read as of the following:

In Claim 15,

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15. (currently amended) A ~~network device~~ cable modem, comprising:

a server component configured with a plurality of functions and function pointers for the plurality of functions and configured to execute within the ~~network device~~ cable modem;

a client component configured with references to the function pointers and configured to execute within the ~~network device~~ cable modem; and

an interface manager, created by the client component during the initialization of the ~~network device~~ cable modem, configured to execute within the ~~network device~~ cable modem and configured to receive requests for functions from the client component via a message queue and to invoke the requested functions on behalf of the client component from the server component via the function pointers, wherein each request includes a component identifier, an interface identifier, and a function parameter, and to process the client component request by invoking an interface method corresponding to the interface identifier of the server component that corresponds to the component identifier included in the request and passing the function parameter to the server component.

d. Replace claim 20 to read as of the following:

In Claim 20,

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20. (currently amended) A system for facilitating communications within a network station for a data-over-cable network having a plurality of network stations, the system comprising:

a plurality of components in a ~~network station~~ cable modem, each of the plurality of components having a functionality set and a table of pointers for the functionality set;

a station manager in the cable modem having references to the tables of pointers in the plurality of components; and


an interface manager, created by the station manager during initialization of the ~~network station~~ cable modem, for communication via a message queue with the station manager, the interface manager configured to process station manager requests for functionality from the plurality of components through the interface manager via the references to the tables of pointers, wherein the station manger indirectly invokes one of the component functions by requesting that the interface manager invoke the function on behalf of the station manager, and wherein the components, station manager, and interface manager execute within the ~~network device~~ cable modem, wherein each request includes a component identifier, an interface identifier, and a function parameter, and processing the station manager request comprises invoking an interface method corresponding to the interface identifier of the component that corresponds to the component identifier included in the request and passing the function parameter to the component.

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2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip C. Lee whose telephone number is (571) 272-3967.

Philip Lee

March 01, 2006

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